



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Kaoru USUI et al

Filed: February 10, 2005

Serial Number: 10/524,211

Art Unit: 4145

Examiner: Basia Ridley

For: HEAT-GENERATING BODY

DECLARATION UNDER 37 CFR 1.132

Commissioner for Patents
Washington, D.C. 20231

Sir:

I, Yukio URUME do hereby declare as follows:

That I am a citizen of Japan, residing at c/o Mycoal Co., Ltd., 388, Minagawajounai-cho, Tochigi-shi, Tochigi 328-0067 Japan.

I graduated from the Environmental Chemicals Department of Utsunomiya University, Faculty of Engineering and have worked since 1994 at Mycoal Co., Ltd., the former company name is Mycoal Warmers Co., Ltd, where I am assigned to the department of planning and development. My current

professional position is that of the heat-generating-composition.

I am one of the joint inventors of the invention described and claimed in the above-identified patent application.

I measured the critical moisture values of the adhesives disclosed by Munro (US 2002/0037270 A1) as the formulation 5c in EXAMPLE 5, the formulation 6a in EXAMPLE 6 and the formulation 6c in EXAMPLE 6. The moisture value 5c is 68 percent. The moisture value 6a is 56 percent. The moisture value 6c is 54 percent.

Date :April 26th, 2008

Citizenship: Japanese

Inventor's signature: Yukio Urume

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Data Sheet No. 1/3

Measuring Object : Formulation 5c disclosed by Munro (US2002/0037270A1) as EXAMPLE 5

Weight \ Relative Humidity	30%	40%	50%	60%	70%	80%
Premeasurement	8.1g	7.9g	8.4g	8.5g	8.5g	7.8g
Postmeasurement	7.5g	7.5g	8g	8.3g	8.6g	8.6g
Changed Weight	-0.6g	-0.4g	-0.4g	-0.2g	0.1g	0.8g

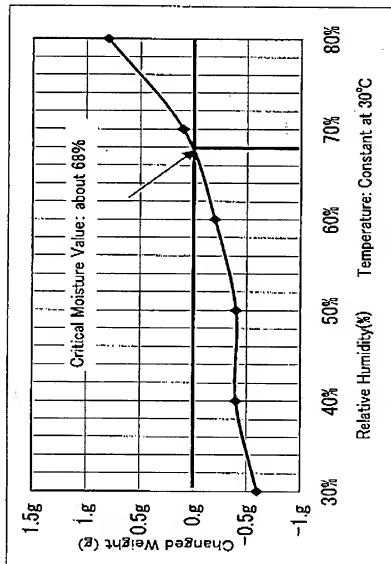
Composition in parts by weight	
Formulation	Weight (g)
50%NaAMPS	75
KCl	5
SPA	2
Glycerin	25
PVXL(Solution)	Solution A
Total Weight	107.15

Coating Amount: 1000~1200kg/m²

NaAMPS: 2-acrylamido-2-methylpropane sulphonic acid

SPA: potassium salt of 3-sulphopropyl acrylate

Solution A: In 20 parts of polyethylene glycol diacrylate (molecular weight 600) 6 parts of 1-hydroxy cyclohexyl phenyl ketone were dissolved.



Data Sheet No. 2/3

Measuring Object: Formulation 6a disclosed by Munro (US2002/0037270A1) as EXAMPLE 6

Weight \ Relative Humidity	30%	40%	50%	60%	70%	80%
Premeasurement	7.2g	7.5g	7.5g	7.7g	7.7g	8.g
Postmeasurement	6.5g	6.9g	7.g	7.9g	8.g	8.8g
Changed Weight	-0.7g	-0.6g	-0.3g	0.2g	0.3g	0.8g

Composition in parts by weight	
Formulation	Weight (g)
58%NaAMPS	67
KCl	5
Citric Acid	1
SPA	2
Glycerin	30
PI/XL(Solution) Solution A	0.13
Total Weight	106.13

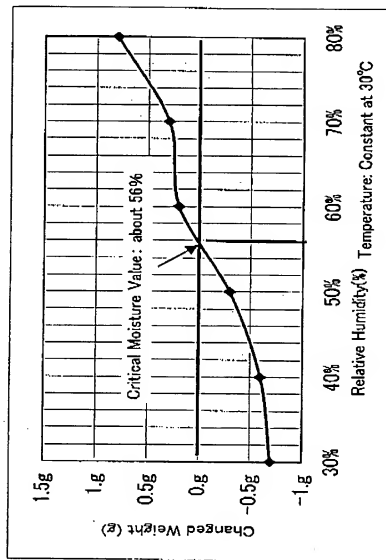
Coating Amount: 1000~1200kg/m²

NaAMPS: 2-acrylamido-2-methylpropane sulphonic acid

SPA: potassium salt of 3-sulphopropyl acrylate



Solution A: In 20 parts of polyethylene glycol diacrylate (molecular weight 600) 6 parts of 1-hydroxy cyclohexyl phenyl ketone were dissolved.



Data Sheet No. 3/3

Measuring Object : Formulation 6c disclosed by Munro (US2002/0037270A1) as EXAMPLE 6

Weight \ Relative Humidity	30%	40%	50%	60%	70%	80%
Premeasurement	7.6	8.1	7.6	7.9	7.7	7.9
Postmeasurement	6.9	7.8	7.4	8.1	8.2	9.1
Changed Weight	-0.7	-0.3	-0.2	0.5	0.5	1.2

Composition in parts by weight	
Formulation	Weight (g)
58%NaAMPS	57
KCI	5
SPA	10
Glycerin	33
PI/XL(Solution) Solution A	0.05
Total Weight	105.05

Coating Amount: 1000~1200g/m²

NaAMPS: 2-acrylamido-2-methylpropane sulphonie acid

SPA: potassium salt of 3-sulphopropyl acrylate

Solution A: In 20 parts of polyethylene glycol diacrylate (molecular weight 400) 6 parts of 1-hydroxy cyclohexyl phenyl keton were dissolved.

